the ANA. Specific identification of ANA will aid in the differential diagnosis and management of the disease.

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Alloimmune Neonatal Thrombocytopenia

ALLOIMMUNE neonatal thrombocytopenia (ANT) is an uncommonly reported disease. It is recognized in about one per 5,000 births, but it probably occurs much more frequently. ANT is analogous to Rh hemolytic disease of the newborn, except that the transplacentally acquired maternal antibody is directed against paternal antigens on the fetal platelets rather than on red cells. Usually the Pl^{A1} platelet antigen, present in 98 percent of the population, is involved.

The first-born infant has been affected in about half the reported cases. While petechiae, ecchymoses and purpura may appear at birth, more often these will develop several hours later. The platelet count is usually less than 30,000 per cu mm. The most serious threat to the infant is intracranial hemorrhage with possible neurologic injury or death.

Specific diagnosis of ANT is made difficult by the general unavailability and limited reliability of platelet antibody testing. Treatment can rarely await the establishment of the specific diagnosis, but must be instituted on the basis of a diagnosis of exclusion of other (and there are many) possible causes of neonatal thrombocytopenia.

Exchange transfusion to wash out the offending antibody has been tried with limited success. (The IgG antibody has about a 45 percent/55 percent intravascular/extravascular distribution and a half-life of 23 days.) The best therapy is probably transfusion with platelets lacking the Pl^{A1} antigen. Such platelets will be found in only 2 percent of the general population and platelet typing is not commonly available. The mother's platelets, however, will be compatible as she will lack the antigen against which she has formed the antibody (this will be true regardless of the antigen specificity).

It is essential that the maternal plasma be removed from the platelet preparation since maternal plasma is the source of the offending antibodies. The platelets can be suspended for infusion in group AB donor plasma.

With early diagnosis and appropriate therapy there should be rapid hematologic improvement. Occasional patients may require a second infusion of maternal platelets. Without treatment a mortality rate of about 14 percent has been reported in the literature.

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Amyloid Fibrils in Urine

AMYLOIDOSIS is a connective tissue disease, first described by Virchow, in which deposits of a hyaline protein carbohydrate material are laid down between the parenchymal cells of various organs, gradually infiltrating them and preventing their normal function. Blood vessel walls are especially susceptible to amyloid and it is in these areas that it can initially be seen in histological sections.

For diagnosis, a rectal biopsy can be done in the operating room, or a renal biopsy may be done using fluoroscopy. However, both of these procedures involve patient discomfort and major operating room costs. Such invasive procedures run the risk of serious internal bleeding. The negative results often obtained to not rule out amyloid and most physicians, in view of the pain and hazard involved, are loath to repeat the procedure.

Recently, a new technique has been evolved using the patient's urine sediment examined by electron microscopy. A 250 to 400 ml quantity of clean-catch urine, collected without preservatives, is spun at 10,000 G for one hour and the sediment obtained is fixed in buffered 2 percent glutaraldehyde or buffered 4 percent paraformaldehyde. The